

Title (en)

Method of solidifying liquid metal in a casting wheel.

Title (de)

Verfahren zur Erstarrung eines flüssigen Metalls in einem Giessrad.

Title (fr)

Perfectionnement au procédé de solidification de métal liquide dans une roue de coulée.

Publication

**EP 0289433 A1 19881102 (FR)**

Application

**EP 88420123 A 19880419**

Priority

FR 8705953 A 19870421

Abstract (en)

An improvement to the method of solidifying liquid metal in a casting wheel. The method consists in subjecting the metal (19), during solidification in the groove (2) of the wheel (1), to electromagnetic forces (20) of variable intensity and whose principal direction of action is parallel to the direction of displacement of the blank. The electromagnetic forces may be created by means of a sliding- field inductor (16, 17) or, more particularly, a linear motor placed above the strip (10, 11) which closes the groove in the zone where the metal is solidifying. This invention makes it possible to obtain blanks having a fine- grained structure and, if appropriate, which are free from segregations and porosities without having recourse to the addition of refining agents. <IMAGE>

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**B22D 11/0602** (2013.01); **B22D 11/115** (2013.01)

Citation (search report)

- [Y] FR 2412371 A1 19790720 - ASEA AB [SE]
- [AD] FR 1551447 A 19681227
- [X] PATENT ABSTRACTS OF JAPAN, vol. 8, no. 234 (M-334), 26 octobre 1984, page 47 M 334; JP-A-59 113 958 (HITACHI SEISAKUSHO K.K.) 30-06-1984
- [Y] STEEL TIMES, vol. 213, no. 6, juin 1985, pages 284-287, Redhill, Surrey, GB; P.C. GIBBINS et al.: "Electromagnetic stirring at BSC Rotherham Works"

Cited by

EP0798060A1; WO9102609A1; WO9304801A1

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